IN THE CLAIMS

Please amend claim 1 as follows:

Claim 1 (currently amended): A method for manufacturing a glass base material, which is a base material of an optical fiber, comprising:

forming a core of said glass base material, said forming said core including:

accumulating glass particles on a starting rod to form a porous glass soot free from germanium in an entire process of manufacturing the glass base material; and

sintering said porous glass soot in an atmosphere of mixed gas containing fluorine-compound gas to form a GI type refractive index profile, a density of fluorine contained in said porous glass soot gradually increasing with a distance from a center of said core; and

forming a clad of said glass base material around said core.

Claim 2 (original): A method as claimed in claim 1, wherein:

said sintering said porous glass soot controls a fluorine-compound gas content in said atmosphere of said mixed gas and sintering speed for sintering said porous glass soot to form said GI type refractive index profile.

Claim 3 (original): A method as claimed in claim 2, further comprising:

recognizing a density of said porous glass soot;

determining said fluorine-compound gas content in said mixed gas based on said recognized density of said porous glass soot; and

determining said sintering speed based on said recognized density of said porous glass soot; wherein:

said sintering sinters said porous glass soot according to said determined fluorine-compound gas content and said determined sintering speed.

Claim 4 (original): A method as claimed in claim 1, wherein said accumulating said glass particles forms said porous glass soot having a density in a range from 0.15 g/cm^3 to 1.0 g/cm^3 .

Claim 5 (original): A method as claimed in claim 4, wherein said accumulating said glass particles forms said porous glass soot having a density in a range from 0.15 g/cm^3 to 0.4 g/cm^3 .

Claim 6 (original): A method as claimed in claim 2, wherein said sintering said porous glass soot controls said fluorine-compound gas content within a range from 0.1 Vol% to 10 Vol%.

Claim 7 (original): A method as claimed in claim 2, wherein said sintering said porous glass soot controls said sintering speed within a range from 5 mm/min to 10 mm/min.

Claim 8 (previously presented): A method for manufacturing a glass base material, which is a base material of an optical fiber, comprising:

forming a core of said glass base material; and

forming a clad of said glass base material around said core,

wherein said forming said core includes:

accumulating glass particles on a starting rod to form a porous glass soot;

sintering said porous glass soot in an atmosphere of mixed gas containing fluorine-compound gas to form a GI type refractive index profile, the refractive index of which gradually decreases with a distance from a center of said core; and

wherein said accumulating said glass particles hydrolyzes and accumulates silicon tetrachloride on said starting rod.

Claim 9 (original): A method as claimed in claim 1, wherein said forming said core further includes forming an inner core, a refractive index of which is substantially the same as a refractive index of pure quartz, inside said core.

Claim 10 (withdrawn): A glass base material, which is a base material of an optical fiber, comprising:

a fluorine-doped core which has a GI type refractive index profile that gradually decreases with a distance from a center of said fluorine-doped core; and

a fluorine-doped clad having a substantially uniform refractive index profile.

Claim 11 (withdrawn) A glass base material as claimed in claim 10, further comprising: an inner core, a refractive index of which is substantially the same as a refractive index of pure quartz, inside said fluorine-doped core.

Claim 12 (withdrawn): A glass base material as claimed in claim 11, wherein the highest refractive index of said fluorine-doped core is smaller than said refractive index of said inner core.

Claim 13 (withdrawn): A glass base material as claimed in claim 12, wherein a refractive index of said fluorine-doped clad is smaller than the lowest refractive index of said fluorine-doped core.

Claim 14 (withdrawn): A glass base material as claimed in claim 11, wherein an absolute value of a difference of a refractive index between said inner core and said pure quartz is 0.001 or smaller.

Claim 15 (withdrawn): An optical fiber, comprising:

a fluorine-doped core which has a GI type refractive index profile that gradually decreases with a distance from a center of said fluorine-doped core; and

a fluorine-doped clad having a substantially uniform refractive index profile.

Claim 16 (withdrawn): An optical fiber as claimed in claim 15, further comprising: an inner core, a refractive index of which is substantially the same as a refractive index of pure quartz, inside said fluorine-doped core.

Claim 17 (withdrawn): An optical fiber as claimed in claim 16, wherein the highest refractive index of said fluorine-doped core is smaller than said refractive index of said inner core.

Claim 18 (withdrawn): An optical fiber as claimed in claimed 17, wherein a refractive index of said fluorine-doped clad is smaller than the lowest refractive index of said fluorine-doped core.

Claim 19 (withdrawn): An optical fiber as claimed in claim 16, wherein an absolute value of a difference of a refractive index between said inner core and said pure quartz is 0.001 or smaller.

Claim 20 (withdrawn): An optical fiber as claimed in claim 15, wherein said optical fiber is an optical fiber for a high power laser.

Claim 21 (withdrawn): An optical fiber as claimed in claim 20, wherein said high power laser is a YAG laser.